Annual Report

Blue Tier Reserve 2017-19

www.tasland.org.au

Introduction

The Tasmanian Land Conservancy (TLC) protects important natural areas as permanent reserves and aims to demonstrate excellence in reserve management for biodiversity conservation. The TLC has adopted an adaptive management framework – the Open Standards for the Practice of Conservation which comprises 5 key steps – planning, implementing, monitoring, reporting, review/adaptation and communication.

Blue Tier Reserve was acquired by the TLC in 2013 to protect 100 hectares of ancient rainforest on the slopes of the Blue Tier in northeast Tasmania. The Blue Tier Reserve is surrounded by a public reserve of the same name. The management of the Reserve is guided by the Blue Tier Reserve Management Plan. The plan is implemented by TLC staff through an Annual Work Plan and Monitoring Plan. Details of ecological monitoring methods can be found in TLC's Ecological Monitoring Procedures Manual on www.tasland.org.au.

This report describes progress made towards delivery of the management plan in 2017-19, and is divided into three sections:

1. Reserve Scorecard – a table summarising the results of management effectiveness and ecological monitoring to date;
2. Management Effectiveness Summary – providing details of the implementation of key management strategies and making recommendations for plan improvement;
3. Ecological Monitoring Summary – providing details of the status of conservation targets and trends of key ecological indicators

The recommendations made in this report are used to adapt and improve management of the Reserve, update the management plan, and revise work and monitoring plans for the coming year. Key findings of this report are communicated to TLC Board, supporters and other stakeholders.

Blue Tier Reserve Scorecard 2017-19

Ecological Monitoring			
Target	*Indicator*	*Status 2016-17*	*Status 2017-19 Trend*
Rainforest	Structural complexity	Photspheres collected	Photspheres tagged and scored for baseline data
Terrestrial mammals	Species richness	4 native species 2 introduced species	Baseline data collected May 2017
	Proportion native species	0.67	
	Native species diversity indices	Simpsons 0.62 Shannon-Wiener 1.10	Repeat data collection scheduled for 2021
Feral cats	Cat occupancy	0.67 (detected at 2 of 3 camera sites)	
	Cat activity	0.03 (3 detections from 105 trap nights)	
Management Effectiveness			
Strategy	*Indicator*	*Status 2016-17*	*Status 2017-19 Trend*
Fire management	# unplanned fires	0	0 - No change

Note: Community connection as a strategy has been removed and is now reported annually across all TLC reserves

Cover image: Photosphere taken at Blue Tier Reserve monitoring site May 2017. Credit: TLC.

Monitoring Summary

Rainforest	Status: Very Good
Goal: Maintain the condition of rainforest	**Outcome: On Track**

Target Description: The Blue Tier Reserve protects 100 hectares of old growth rainforest on the slopes of the Blue Tier plateau in northeast Tasmania. The rainforest is ancient, with huge myrtles dominating the canopy. The understorey is unusually diverse for temperate rainforest, with montane species such as celery top pine and waratah, along with rainforest regulars such as sassafras and tree ferns. The threatened Simson's Stag Beetle is the largest beetle in Tasmania and is found in leaf litter and decaying logs on the forest floor.	 Southern brown bandicoot were detected on cameras at 2 Blue Tier monitoring sites in 2017

Target	Ecological indicator	Status 2016-17	Status 2017-19 Trend
Rainforest	Structural complexity	Photspheres collected	Photspheres scored for baseline data
Terrestrial mammals	Species richness	4 native species 2 introduced species	Baseline data collected May 2017
	Proportion native species	0.67	
	Native species diversity indices	Simpsons 0.62 Shannon-Wiener 1.10	Repeat data collection scheduled for 2021
Feral cats	Cat occupancy	0.67 (detected at 2 of 3 camera sites)	
	Cat activity	0.03 (3 detections from 105 trap nights)	

Key findings in 2017-19
- Baseline ecological monitoring data was established in May 2017 with 3 camera traps installed for terrestrial mammals and 10 photospheres to monitor vegetation structure. The mammal data was reanalysed in 2019 with 6 species recorded: Tasmanian pademelon, brushtail possum, eastern quoll, southern brown bandicoot, black rat and feral cat. Echidna were also recorded but outside the survey period.
- The Blue Tier Background Report and Management Plan were finalised in 2017, approved in 2018, and available on the web.
- The Blue Tier Covenant was registered on title Registered 27-Mar-2017

Recommendations
- Photospheres are tagged but require location information
- The remoteness and inaccessibility of this Reserve makes regular monitoring difficult. Remote sensing should be adopted as the primary means of monitoring in the future.

Management Effectiveness Summary

Fire management	
Key objective(s) • No unauthorised fires occur on the reserve (ongoing)	**Status 2017-19** **On-track**

Strategy description	
Strategy description An inappropriate fire regime will reduce the condition of the natural values at Blue Tier Reserve. The impact of fire on local communities also needs to be considered. The vegetation at the Blue Tier Reserve and the surrounding area is old-growth rainforest, which is very fire sensitive. A fire risk assessment has determined that the Reserve presents a low risk to local communities due to the distance from nearby built assets and residences.	Fire sensitive vegetation in the Blue Tier Reserve. Photo: M Taylor

Indicator	Status 2016-17	Status 2017-19 Trend
No. of unplanned fires	0 unplanned fires	0 unplanned fires - Flat

Progress in 2017-19
- There were no unauthorised fires on the Reserve during 2017-19.
- A fire risk assessment was completed for all TLC reserves and a fire management policy is being implemented which includes a fuel stove only policy.
- Blue Tier Reserve is highly fire sensitive and its rainforest values would be significantly impacted if fire occurred there. During 2017-19 the TLC accredited a number of staff who are fire trained and able to respond to fire, and the organisation maintains a number of small fire-fighting units which can deployed from the back of vehicles.
- Mountain bike tracks and new houses have been established near the reserve during this reporting period. These developments increases potential for illegal and escaped fires to enter the reserve.
- TLC does not encourage visitation to this Reserve and in 2018 had a supporter trip to the adjacent Blue Tier public reserve attended by 3 TLC staff and 3 guests.

Key recommendations for future management
- Liaise with fire agencies through the TFS Fuel Reduction Unit to develop a strategy to mitigate the potential for wildfire to reach the Blue Tier region.
- Continue to implement the no fire strategy and no visitation to the Blue Tier Reserve.